

## ABSTRACT

The present invention provides a cell separation and recovery apparatus and a separation and recovery method, by which target cells are separated and recovered from a cell source in a large amount within a short period of time without inflicting damage the cells. The cell separation and recovery apparatus 10 of the present invention is characterized in that it is equipped with a treatment part 11 having a non-woven fabric bound with a polymer capable of showing a hydrophobic nature at a temperature higher than a predetermined temperature and a hydrophilic nature at a temperature lower than the predetermined temperature and a physiologically active substance capable of binding to the target cells, and a liquid temperature controlling part 14 which controls liquid temperature of the treatment part 11, and is constructed so as to release the cells captured on the non-woven fabric and recover them from the non-woven fabric by changing the liquid temperature of the treatment part around the predetermined temperature by the liquid temperature controlling part.